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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,429	05/24/2006	Richard E. Walters	06-088	2547

7590
Marvin S Towsend
Patent Attorney
8 Grovepoint Court
Rockville, MD 20854

EXAMINER

EDWARDS, LYDIA E

ART UNIT	PAPER NUMBER
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1797

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/580,429	Applicant(s) WALTERS, RICHARD E.	
	Examiner LYDIA EDWARDS	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-14 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

Claim 5 is objected to because of the following informalities: Claim 5 is a dependent claim which does not stem from an independent claim. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding Claims 1 and 6, the applicant fails to specify r_1 and r_2 . A ratio from 0.7-0.9 may consist of one of many values defined to be r_1 and or r_2 . A limitation together with a narrow range is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired.

Allowable Subject Matter

Claims 1 and 6 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Prior art fails to teach or suggest wherein said first electrode radius, said second electrode radius, and said gap are selected in accordance with a predetermined range of selectable ratios

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(r_1/r_2) of said first electrode radius to said second electrode radius, wherein said range of selectable ratios is from 0.7 to 0.9.

Claims 2-4 and 7 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Prior art fails to teach or suggest wherein said non-conductive outer electrode cover member includes a concave outer cover member surface and said non-conductive inner electrode cover member includes a convex inner cover member surface, and said outer cover member radius is equal to said outer electrode radius, and said inner cover member radius is equal to said inner electrode radius, whereby said access channel is in registration with said fusion chamber.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 8, and 10-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Mochizuki et al. (US 4804450).

Regarding Claim 8, Mochizuki et al. ('450) teaches an apparatus for electrofusion comprising: a non-conductive base member (3:32), a conductive outer electrode (3:36a) supported on said base member, wherein said outer electrode includes a concave outer electrode surface which has an outer electrode radius and has an electrode height, a conductive inner electrode (3:36b) supported on said base member, wherein said inner electrode includes a convex inner electrode surface which has an inner electrode radius and has the electrode height, wherein said outer electrode surface and said inner electrode surface are spaced apart from each other by a gap (3:40) which defines a fusion chamber, a non-conductive outer electrode cover member electrode (3:34) supported by said outer, and a non-conductive inner electrode cover member electrode (3:34) supported by said inner electrode, wherein said outer electrode cover member and said inner electrode cover member define an access channel, wherein said access channel is in communication with said fusion chamber (Col 2, line 30-Col 3, line 53; Col 4, lines 41-68; Figures 1-8).

Regarding Claim 10, Mochizuki et al. ('450) teaches an apparatus for electrofusion comprising: a non-conductive support member (4:32), a conductive outer electrode (4:36a) supported in a horizontal orientation by said support member (Figure 4), wherein said outer electrode includes a conductive concave outer electrode surface which has an outer electrode radius and has an electrode width, a conductive inner electrode (4:36b) supported in a horizontal

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orientation by said support member above said outer electrode, wherein said inner electrode includes a conductive convex inner electrode surface which has an inner electrode radius and has said electrode width, and non-conductive vertically oriented end walls (Figure 5) located at ends of said outer electrode and said inner-electrode, wherein said outer electrode surface and said inner

electrode surface are spaced apart from each other by a gap (4:40), and wherein said gap and said vertically oriented end walls define a fusion chamber (Col 2, line 30-Col 3, line 53; Col 4, lines 41-68; Figures 1-8).

Regarding Claims 11-12, Mochizuki et al. ('450) teaches wherein: said outer electrode includes a non-conductive outer electrode support portion (6:32) which supports said conductive outer-electrode surface, and said inner electrode includes a non-conductive inner electrode support (6:32) portion which supports said conductive inner electrode surface (Figures 3-6).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mochizuki et al. (US 4804450) as applied above to claim 10, further in view of Pohl (US 4441972).

Regarding Claim 13, Mochizuki et al. ('450) is silent with the regards to an input/output port in communication with the cell fusion chamber, therefor it would have been necessary and thus obvious to look to prior art for an input/output port in communication with a cell fusion chamber. Pohl ('972) discloses an input (2:34)/output (2:40) port in communication with the fusion chamber (Col 2, line 48-Col 3, line 1; Figure 2) showing that it is known in the art at the time the invention was made to modify Mochizuki to include an input/output port in communication with the cell fusion chamber motivated by the expectation of successfully practicing the invention of Mochizuki.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mochizuki et al. (US 4804450) as applied above to claim 10, further in view of Wang et al. (US 2002/0182627).

Regarding Claim 14, Mochizuki et al. ('450) is silent with the regards to a filter pressure relief valve, therefor it would have been necessary and thus obvious to look to prior art for a conventional pressure valve. Wang et al. ('627) discloses wherein valves are used to regulate pressure (Paragraphs 375 and 402) showing that it is known in the art at the time the invention was made to modify Mochizuki to include a pressure valve motivated by the expectation of successfully practicing the invention of Mochizuki.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LYDIA EDWARDS whose telephone number is (571)270-3242. The examiner can normally be reached on Mon-Thur 6:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Griffin can be reached on 571.272.1447. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/LYDIA EDWARDS/
Examiner
Art Unit 1797

LE

/Walter D. Griffin/
Supervisory Patent Examiner, Art Unit 1797